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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/553,933

10/20/2005

Benjamin Geller

37514

6137

67801

7590

08/03/2011

MARTIN D. MOYNIHAN d/b/a PRTSI, INC.

P.O. BOX 16446

ARLINGTON, VA 22215

EXAMINER

GUPTA, VANI

ART UNIT

PAPER NUMBER

3777

MAIL DATE

DELIVERY MODE

08/03/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/553,933	GELLER ET AL.	
	Examiner	Art Unit	
	VANI GUPTA	3777	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,35-40,45-54,56 and 57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,35-40,45-54,56 and 57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 – 7, 35, 36, 39, 40, 46 – 54, 56, 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook (WO 02/102249 A1).

Regarding Claim 1, Cook suggests an apparatus for the ultrasonic treatment of tissue, including: a housing having (a) a space (422) therewithin and an opening adapted for placement against the tissue, the housing being adapted for introducing liquid therein; and (c) a flat interface (395) suitable for separating the ultrasonic transducer from the liquid while ultrasonically coupling therebetween; said apparatus further comprising a liquid inlet (400) and a liquid outlet (405) placed in said housing on opposite sides of an area of the skin to be treated, so that the liquid flows across the area (fig. 8; pp. 21 – 22).

Cook suggests also that there is an abutment (445) for an ultrasound transducer to be placed against during treatment. However, Cook's present embodiment (fifth embodiment) differs from Claim 1 in that the embodiment does not provide (b) a receptacle adapted to receive and engage an ultrasonic transducer.

Nonetheless, Cook discloses in another embodiment (second embodiment - *fig. 2*) a receptacle for holding the ultrasound transducer in place (pp. 15 – 16).

It would be obvious to one skilled in the art, having the teachings of Cook's embodiments before one at the time the invention was made, to modify Cook's fifth's embodiment with Cook's second embodiment so that one may be able to "tightly" hold the transducer in place (as suggested by Cook) for optimal treatment.

Regarding Claim 2, Cook describes a third embodiment (fig. 6) comprising an opening that comprises a sealing element (225) that provides a seal at the tissue (p. 20).

Regarding Claim 3, Cook discloses the apparatus according to claim 2, wherein the seal includes a flexible element (235).

Regarding claims 4 and 5, Cook discloses the apparatus according to claim 2, wherein the seal includes an outwardly protruding portion that is placed to contact the tissue surface (see figure 6).

Regarding claims 6 and 7, Cook suggests an apparatus according to claim 3, wherein the seal includes an inwardly protruding portion that is placed to contact the tissue surface due to the fact that Cook suggests that the seal is pressed to the surface of patient's body and therefore conforms to the skin of the patient. Thus, the seal would include an inwardly protruding portion when the device is placed in contact with the tissue surface.

Regarding Claim 36, Cook suggests an apparatus according to claim 1, wherein the interface is part of the housing (see rejection of Claim 1).

Regarding Claim 39, Cook suggests an apparatus according to claim 1, wherein at least a portion of the interface is capable of acoustically matching the liquid to an extent that prevents cavitation at the interface between the liquid and the interface.

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Regarding Claim 46, Cook suggests an apparatus according to claim 1, wherein all of the housing is made of an elastomer (p. 15, last paragraph – p. 16, second paragraph).

Regarding Claim 47, Cook suggests an apparatus according to claim 48, wherein the interface has acoustic properties similar to the liquid in that acoustic/ultrasonic energy travels through both the interface and the liquid to the skin (see aforementioned citations).

Regarding Claim 48, Cook suggests an apparatus according to claim 1, wherein the apparatus is filled with liquid (see rejection of Claim 1).

Regarding Claim 49, Cook suggests an apparatus according to claim 48, wherein the liquid is one of a saline (see rejection of claim 1; p. 21).

Regarding Claim 50, Cook suggests an apparatus according to claim 48, wherein the liquid is capable of comprising medication (e.g., glucose; p. 14).

Regarding Claim 51, Cook suggests an apparatus according to claim 1, wherein the apparatus comprises an ultrasonic transducer (see rejection of Claim 1).

Regarding Claim 35, Cook suggests an apparatus according to claim 51, wherein the ultrasonic transducer includes an ultrasonic energy concentrator in that the transducer is capable of concentrating ultrasonic energy towards intended target (see rejection of Claim 1).

Regarding Claim 40, Cook suggests an apparatus according to claim 51, wherein the housing is capable of being disposable or separately sterilizable and the ultrasound transducer is capable of being reusable not require sterilization thereof (see rejection of Claim 1).

Regarding Claim 52, Cook suggests an apparatus according to claim 51, wherein the transducer is capable of transmitting into liquid introduced into the housing ultrasonic energy in an amount that causes desired cavitation at the surface of the tissue.

Regarding claims 53 and 54, see rejection of Claim 1.

Regarding Claim 56, Cook suggests an apparatus according to claim 1, wherein said housing is capable of being fabricated from a single piece of material, as is would be known by one of ordinary skill in the art.

Regarding Claim 57, Cook suggests an apparatus according to claim 1, further comprising a liquid removal unit connected to said liquid outlet for removal of liquid from said space (*fig. 1; 500, 510*).

2. Claims 37, 38 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook as applied to claim 1 above, and further in view of Glossack et al. (US 5,585,565).

Regarding claims 37 and 38, Cook teaches each and every limitation of the claim, as discussed above in reference to claim 1.

However, Chen does not teach an apparatus wherein the interface comprises an elastic barrier; and/or further comprises polyurethane.

Nonetheless, Glossack et al. teaches an apparatus, wherein the elastic barrier comprises polyurethane (*figs. 1, 2, and 5; col. 3, ll. 6 – 26*).

Accordingly, it would have been obvious to one of ordinary skill in the art, having the teachings of Cook and Glossack before one at the time the invention was made, to modify the ultrasound-based device with transducer-barrier of Cook to include the elastomeric, polyurethane-based material of Glossack et al. so that transducer becomes “water-impervious” to the liquid.

Regarding Claim 45, Glossack suggests an apparatus according to claim 1, wherein the interface is made of an elastomer.

Response to Arguments

3. On July 21, 2011, Examiner spoke with Representative of Record, Jason H. Rosenblum, about Examiner's Amendment to the claims for placing the application in condition for Allowance. The proposed changes entailed amending Claim 1 to include the portion of Claim 28 and all of Claim 39 to differentiate it from prior art Cook. However, Applicant has elected not to make these changes and instead receive this pending response from the Office.
4. Applicant's arguments with respect to present claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VANI GUPTA whose telephone number is (571)270-5042. The examiner can normally be reached on Monday - Thursday (8:30 am - 6:00 pm; EST).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert (Tse) Chen can be reached on 571-272-3672. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/V. G./
Examiner, Art Unit 3777

/Tse Chen/
Supervisory Patent Examiner, Art Unit 3777